

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. USFMCR.066C2C1C	APPLICATION NO. 10/674694
O P E R A T I O N S INFORMATION DISCLOSURE STATEMENT BY APPLICANT  MAY 24 2004 (USE SEVERAL SHEETS IF NECESSARY)		APPLICANT Zha, et al.	
		FILING DATE September 30, 2003	GROUP Unknown

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
ZH	1	10/437,202	05/12/03	Muller			
ZH	2	10/674,694	09/30/03	Zha, et al.			
ZH	3	10/676,458	09/30/03	Cox, et al.			
ZH	4	10/738,628	12/16/03	Muller, et al.			
ZH	5	10/759560	01/15/04	Zha, et al.			
ZH	6	10/774,041	02/06/04	Zha, et al.			
ZH	7	2001-0027951	10/11/01	Gungerich et al.			
ZH	8	2002-0148767	10/17/02	Johnson et al.			
ZH	9	2002-0153299	10/24/02	Mahendran et al.			
ZH	10	2002-0195390	12/26/02	Zha et al.			
ZH	11	2003-0075504	04/24/03	Zha et al.			
ZH	12	2003-0089659	05/15/03	Zha et al.			
ZH	13	2003-0136746	07/24/03	Behman et al.			
ZH	14	2003-0141248	07/31/03	Mahendran et al.			
ZH	15	2003-0164332	09/04/03	Mahendran et al.			
ZH	16	2003-0178365	9/25/03	Zha et al.			
ZH	17	2003-0205519	11/06/03	Zha et al.			
ZH	18	2003-0226797	12/11/03	Phelps			
ZH	19	2003-0234221	12/11/03	Johnson et al.			
ZH	20	2004-0000520	1/1/04	Gallagher et al.			
ZH	21	3,228,876	01/11/66	Mahon			
ZH	22	3,693,406	09/72	Tobin			
ZH	23	3,708,071	01/02/73	Richard P. Crowley			
ZH	24	3,968,192	06/07/76	Hoffman et al.			
ZH	25	3,992,301	11/76	Shippey et al.			
ZH	26	4,188,817	02/80	Steigelmann			

EXAMINER <i>Dan Tobin</i>	DATE CONSIDERED <i>1/10/05</i>
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U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
<i>JW</i>	27	4,192,750	03/11/80	Elfes et al.			
<i>JW</i>	28	4,193,780	03/80	Cotton et al.			
<i>JW</i>	29	4,218,324	08/19/80	Hartmann et al.			
<i>JW</i>	30	4,248,648	02/81	Kopp			
<i>JW</i>	31	4,384,474	05/83	Kowalski			
<i>JW</i>	32	4,385,150	05/24/83	Miyake et al.			
<i>JW</i>	33	4,451,369	05/29/84	Sekino et al.			
<i>JW</i>	34	4,511,471	04/85	Müller			
<i>JW</i>	35	4,540,490	09/10/85	Shibata et al.			
<i>JW</i>	36	4,547,289	10/85	Okano et al.			
<i>JW</i>	37	4,609,465	09/02/86	Miller			
<i>JW</i>	38	4,614,109	09/86	Hoffman			
<i>JW</i>	39	4,632,745	12/30/86	Giuffrida et al.			
<i>JW</i>	40	4,636,296	01/13/87	Kunz			
<i>JW</i>	41	4,642,182	02/87	Drori			
<i>JW</i>	42	4,647,377	03/03/87	Miura			
<i>JW</i>	43	4,650,596	03/17/87	Ellis			
<i>JW</i>	44	4,656,865	04/87	Callan			
<i>JW</i>	45	4,660,411	04/87	Reid			
<i>JW</i>	46	4,670,145	06/02/87	Edwards			
<i>JW</i>	47	4,673,507	6/16/87	Brown			
<i>JW</i>	48	4,687,561	08/18/87	Kunz			
<i>JW</i>	49	4,688,511	08/25/87	Gerlach et al.			
<i>JW</i>	50	4,718,270	01/86	Storr			
<i>JW</i>	51	4,744,240	05/88	Reichelt			
<i>JW</i>	52	4,756,875	07/12/88	Tajima et al.			

EXAMINER <i>Daniel John</i>	DATE CONSIDERED <i>1/10/05</i>
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U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
JL	53	4,767,539	8/88	Ford			
JL	54	4,779,448	10/88	Gogins			
JL	55	4,784,771	11/88	Wathen et al.			
JL	56	4,793,932	12/88	Ford et al.			
JL	57	4,797,211	01/89	Ehrfeld et al.			
JL	58	4,810,384	03/07/89	Fabre			
JL	59	4,812,235	03/14/89	Seleman et al.			
JL	60	4,816,160	03/89	Ford et al.			
JL	61	4,846,970	07/89	Bertelsen et al.			
JL	62	4,876,006	10/24/89	Ohkubo et al.			
JL	63	4,876,012	10/24/89	Kopp et al.			
JL	64	4,921,610	05/01/90	Ford et al.			
JL	65	4,931,186	06/05/90	Ford et al.			
JL	66	4,935,143	06/90	Kopp et al.			
JL	67	4,999,038	03/91	Lundberg			
JL	68	5,005,430	04/91	Kibler et al.			
JL	69	5,024,762	06/18/91	Ford et al.			
JL	70	5,066,375	11/19/91	Parsi et al.			
JL	71	5,066,401	11/19/91	Muller et al.			
JL	72	5,066,402	11/91	Anselme et al.			
JL	73	5,069,065	12/91	Sprunt et al.			
JL	74	5,076,925	12/31/91	Roesink et al.			
JL	75	5,079,272	01/07/92	Allegrezza, et al.			
JL	76	5,094,750	03/10/92	Kopp et al.			
JL	77	5,104,535	04/14/92	Cote et al.			
JL	78	5,104,546	04/92	Filson et al.			

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U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
DH	79	5,137,631	08/11/92	Eckman, et al.			
DH	80	5,138,870	08/92	Lyssy			
DH	81	5,151,191	09/29/92	Sunaoka et al.			
DH	82	5,151,193	09/29/02	Grobe et al.			
DH	83	5,158,721	10/27/92	Allegrezza, et al.			
DH	84	5,182,019	01/26/93	Cote et al.			
DH	85	5,192,456	3/93	Ishida et al.			
DH	86	5,194,149	03/16/93	Selbie et al.			
DH	87	5,198,116	03/93	Comstock et al.			
DH	88	5,209,852	05/11/93	Sunaoka, et al.			
DH	89	5,211,823	05/18/93	Giuffrida et al.			
DH	90	5,221,478	06/22/93	Dhingra et al.			
DH	91	5,227,063	07/13/93	Langerak, et al.			
DH	92	5,248,424	09/08/93	Cote et al.			
DH	93	5,297,420	03/94	Gilliland et al.			
DH	94	5,320,760	06/14/94	Freund et al.			
DH	95	5,353,630	10/94	Soda et al.			
DH	96	5,361,625	11/94	Ylvisaker			
DH	97	5,364,527	11/15/94	Zimmerman et al.			
DH	98	5,389,260	02/95	Hemp et al.			
DH	99	5,401,401	03/95	Hickok et al.			
DH	100	5,403,479	04/04/95	Smith et al.			
DH	101	5,405,528	04/11/95	Selbie et al.			
DH	102	5,417,101	05/23/95	Weich			
DH	103	5,419,816	05/95	Sampson et al.			
DH	104	5,470,469	11/28/95	Eckman			

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
DH	105	5,477,731	12/26/95	Mouton			
DH	106	5,480,553	01/02/96	Yamamori et al.			
DH	107	5,531,848	07/02/96	Brinda et al.			
DH	108	5,531,900	07/02/96	Raghaven et al.			
DH	109	5,543,002	08/06/96	Brinda et al.			
DH	110	5,554,283	09/10/96	Brinda et al.			
DH	111	5,607,593	03/04/97	Cote et al.			
DH	112	5,639,373	06/17/97	Mahendran et al.			
	113	5,630,373	06/17/97	Mahendran et al.			
DH	114	5,643,455	07/01/97	Kopp et al.			
DH	115	5,783,083	07/21/98	Henshaw et al.			
DH	116	5,910,250	06/08/99	Mahendran et al.			
DH	117	5,914,039	06/22/99	Mahendran			
DH	118	5,918,264	06/29/99	Drummond et al.			
DH	119	5,942,113	08/24/99	Morimura			
DH	120	5,944,997	08/31/99	Pedersen et al.			
DH	121	6,024,872	02/15/00	Mahendran			
DH	122	6,039,872	03/21/00	Wu et al.			
DH	123	6,042,677	03/28/00	Mahendran et al.			
DH	124	6,048,454	04/00	Jenkins			
DH	125	6,077,435	6/20/00	Beck et al.			
DH	126	6,083,393	07/07/00	Wu et al.			
DH	127	6,146,747	11/14/00	Wang et al.			
DH	128	6,156,200	12/5/00	Zha et al.			
DH	129	6,159,373	12/00	Beck et al.			
DH	130	6,193,890	02/27/01	Pederson et al.			

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JS	131	6,202,475	03/20/01	Selbie et al.			
JW	132	6,245,239	06/12/01	Cote et al.			
JW	133	6,254,773	07/03/01	Biltoft			
JW	134	6,294,039	09/25/02	Mahendran et al.			
JW	135	6,354,444	03/12/02	Mahendran et al.			
JW	136	6,440,303	08/02	Spiegel			
JW	137	6,524,481	2/25/03	Zha et al.			
JW	138	6,550,747	04/22/03	Rabie et al.			
JW	139	6,555,005	04/03	Zha et al.			
JW	140	6,620,319	09/16/03	Behmann et al.			
JW	141	6,641,733	11/04/03	Zha et al.			
JW	142	6,645,374	11/11/03	Cote et al.			
JW	143	D396,046	07/98	Scheel et al.			
JW	144	D396,726	08/98	Sadr et al.			
JW	145	D400,890	11/98	Gambardella			
JW	146	D462,699	09/10/02	Johnson et al.			
JW	147	D478,913	08/26/03	Johnson, et al.			
JW	148	D763,612	08/88	Iwanami			
JW	149	H1,045	05/92	Wilson			
JW	150	RE37,549	02/19/02	Mahendran et al.			

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES      NO
JW	151	DE 4 117 422	11/12/92	Germany (English language abstract)			X
JW	152	EP 920 904 A2	12/12/00	EPO- 6-1999 EPO			
JW	153	EP 0 463 627 B1	05/10/95	EPO			

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FOREIGN PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE 3-1997	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
JW	154	EP 0 763 758 A1	10/02/96	EPO				
JW	155	EP 0 911 073	4/28/99	EPO				
JW	156	EP 1 052 012 A1	11/15/00	EPO				
JW	157	FR 2 674 448 A1	02/10/92	France (English language abstract)				X
JW	158	GB 2 253 572 A	09/16/92	United Kingdom				
JW	159	JP 01-307409	12/89	Japan (abstract only)				X
JW	160	JP 02-164423	06/25/90	Japan (abstract only)				X
JW	161	JP 02-284035	11/21/90	Japan (abstract only)				X
JW	162	JP 03-018373	01/25/91	Japan (abstract only)				X
JW	163	JP 03-028797	02/06/91	Japan (abstract only)				X
JW	164	JP 04-310223	11/02/92	Japan (abstract only)				X
JW	165	JP 05-023557	02/02/93	Japan (abstract only)				X
JW	166	JP 05-157654	06/93	Japan (abstract only)				X
JW	167	JP 06-071120	03/15/94	Japan (abstract only)				X
JW	168	JP 06-114240	04/26/94	Japan (abstract only)				X
JW	169	JP 07-000770	01/06/95	Japan (abstract only)				X
JW	170	JP 07-275665	10/24/95	Japan (abstract only)				X
JW	171	JP 08-010585	01/16/96	Japan (abstract only)				X
JW	172	JP 09-141063	06/06/97	Japan (abstract only)				X
JW	173	JP 10-156149	06/16/98	Japan (abstract only)				X
JW	174	JP 31-010445	05/10/91	Japan (abstract only)				X
JW	175	JP 58-088007	05/26/83	Japan (abstract only)				X
JW	176	JP 61-097006	05/15/86	Japan (abstract only)				X
JW	177	JP 61-107905	05/26/86	Japan (abstract only)				X
JW	178	JP 61-192309	08/26/86	Japan (translation only)			X	
JW	179	JP 61-257203	11/14/86	Japan (abstract only)				X

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							YES      NO
gjz	180	JP 61-263605	11/21/86	Japan (abstract only)			X
jyy	181	JP 62-004408	01/10/87	Japan (abstract only)			X
jtk	182	JP 62-114609	05/26/87	Japan (abstract only)			X
gjz	183	JP 62-140607	06/24/87	Japan (abstract only)			X
jyy	184	JP 62-179540	08/06/87	Japan (abstract only)			X
jts	185	JP 63-097634	04/28/88	Japan (abstract only)			X
jts	186	JP 63-180254	02/01/90	Japan (abstract only)			X
jts	187	JP 63-143905	06/16/88	Japan (abstract only)			
jts	188	JP 06-343837	12/20/94	Japan (abstract only)			
jts	189	JP 07-185268	07/25/95	Japan (abstract only)			
jts	190	WO 90/00434	01/25/90	PCT			
jts	191	WO 93/02779	02/18/93	PCT			
jts	192	WO 96/41676	12/27/96	PCT			
jts	193	WO 96/07470	03/14/96	PCT			
jts	194	WO 98/22204	05/28/98	PCT			
jts	195	WO 99/59707	11/29/99	PCT			
jts	196	WO 01/36075	05/25/01	PCT			

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)	
gjz	197	Derwent Abstract Accession No. 2001-142268/15, Class A88, J01 JP, A1, 2000342932 (Mitsubishi Rayon Co. Ltd.), December 12, 2000.
jts	198	Almulla et al., Desalination 153 (2002) 237-243.
jts	199	Rosenberger et al., Desalination 151 (2002) 195-200.
jts	200	Cote et al., Wat. Sci. Tech. 38(4-5) (1998) 437-442.

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